

CLAIMS

What is claimed is:

1. In a system for communicating between a plurality of transmitters and a plurality of associated receivers, utilizing repetitive time frames, each time frame subdivided into a plurality of time slots, at least a first time slot allocated to a communication between a first transmitter and a first receiver, an automatic gain control (AGC) system comprising:

means for measuring, at said first receiver, the received signal strength only during said at least first time slot in each of a plurality of successive time frames; and

means for utilizing said measured signal strength to set an initial gain level of the first receiver at said at least first time slot in a subsequent time frame.

2. The AGC system of claim 1, wherein said subsequent time frame is the next consecutive time frame.

3. The AGC system of claim 1, wherein said AGC system further includes:
means for storing a plurality of gain level settings sampled during said single time frame; and

means for averaging said gain level settings to determine said initial gain control level of said receiver during the corresponding time slot in a subsequent time frame.

4. The AGC system of claim 1, wherein said AGC system further includes:
means for storing a plurality of said initial gain levels settings of successive time frames;

means for determining the trend of the stored initial gain levels; and

means for utilizing said trend to control the gain of said receiver during the corresponding time slot in a subsequent time frame.

5. The AGC system of claim 1, wherein said AGC system further includes:
means for storing a plurality of said initial gain levels settings of successive time frames;

means for determining the average of the stored initial gain levels; and

means for utilizing said average to control the gain of said receiver during the corresponding time slot in a subsequent time frame.

6. The AGC system of claim 1, wherein said AGC system further includes:
means for storing a plurality of said measured signal strengths;
means for determining the trend of the stored signal strengths; and
means for utilizing said trend to control the gain of said receiver during the corresponding time slot in a subsequent time frame.

7. The AGC system of claim 6 wherein a microprocessor is used for said determining means and said utilizing means.

8. The AGC system of claim 1, wherein said AGC system further includes:
means for storing a plurality of said measured signal strengths;
means for determining the average of the stored signal strengths; and
means for utilizing said average to control the gain of said receiver during the
corresponding time slot in a subsequent time frame.

9. The AGC system of claim 8 wherein a microprocessor is used for said
determining means and said utilizing means.

10. In a system for communicating between a plurality of transmitters and a
plurality of associated receivers, utilizing repetitive time frames, each time frame
subdivided into a plurality of time slots, at least a first time slot allocated to a
communication between a first transmitter and a first receiver, an automatic gain control
(AGC) method comprising:

measuring, at said first receiver, the received signal strength only during said at
least first time slot in each of a plurality of successive time frames; and

utilizing said measured signal strength to set an initial gain level of the first
receiver at said at least first time slot in a subsequent time frame.

11. The AGC method of claim 10, wherein said AGC method further includes:
storing a plurality of said initial gain levels settings of successive time frames;
determining the trend of the stored initial gain levels; and
utilizing said trend to control the gain of said receiver during the corresponding
time slot in a subsequent time frame.

12. The AGC method of claim 10, wherein said AGC method further includes:
storing a plurality of said initial gain levels settings of successive time frames;
determining the average of the stored initial gain levels; and
utilizing said average to control the gain of said receiver during the corresponding
time slot in a subsequent time frame.

13. The AGC method of claim 10, wherein said AGC method further includes:
storing of a plurality of said measured signal strengths;
determining the trend of the stored signal strengths; and
utilizing said trend to control the gain of said receiver during the corresponding
time slot in a subsequent time frame.

14. The AGC method of claim 1, wherein said AGC method further includes:
storing a plurality of said measured signal strengths;
determining the average of the stored signal strengths; and
utilizing said average to control the gain of said receiver during the corresponding
time slot in a subsequent time frame.